

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendments and the following remarks.

Applicant's invention involves a substantial departure from the prior art methodology of welding plastic ferrules to jacketed optical fibers; i.e., the prior art uses radiation absorptive jackets on the optical fibers which jackets are heated when laser irradiated to create a weld pool which bonds the ferrule to the optical fiber. The present invention not only involves the addition of a third material; i.e., a continuous or discontinuous layer of transitory material between the cladding of the fiber and the ferrule, but further involves revising the composition of the jacket or cladding on the optical fiber so that it is no longer heated directly by laser radiation. This is accomplished by selecting a transitory material which heats up at a radiation wavelength which does not appreciably heat the fiber jacket. The fiber jacket is mainly heated by conduction from the transitory material to become an integral part of the weld pool.

The decisions of the Court of Appeals for the Federal Circuit, which decisions are binding on the Patent Office, regularly recognize the non-obvious quality of inventions which go against the teachings of the prior art; see, for example, In re Dow Chem. Co., 837 F.2d 469, 5 U.S.P.Q.2d 1529 (Fed. Cir. 1988); Panduit Corp. v. Dennison Mfg. Co., 810 F.2d 1561, 1 U.S.P.Q.2d 1593 (Fed. Cir. 1987); Akzo N.V. v. United States ITC, 808 F.2d 1471, 1 U.S.P.Q.2d 1241 (Fed. Cir. 1986); and other cases. The present inventor clearly diverges from the path taken by the APA. Because of that, a person skilled in the art can not be expected to combine the dominant teaching of the APA with some other nonanalogous teaching such as the brief mention in Leaversuch that Clearweld materials may be used at an interface between two clear materials; see In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

Claim 1 has been modestly amended to eliminate what appears to be a superfluous word (fiber) and to add the word "transitory" in the paragraph describing

Appl. No. 10/658,029
Amdt. dated May 12, 2004
Reply to Office Action dated February 12, 2004

the radiation absorptive layer. In addition, the last nine words of claim 1 have been deleted since they are essentially repeated in claim 2.

The method described in claim 1 meets the classic definition of an improvement invention which runs contrary to the prior art. Whereas the Examiner concedes that the APA lacks a disclosure of providing a layer of transitory material in the interface between the fiber cladding and the ferrule, it is also true that the APA uses the fiber cladding as the heat source. Therefore, the APA must be modified to eliminate the use of the cladding as a radiation absorptive material to provide a heat source in the welding process. This runs strongly counter to the teachings of the prior art and is an essential but nonobvious further step in making sense out of any combination of the APA with Leaversuch. None of the prior art, either the APA or Leaversuch, suggests this combination. In fact, Leaversuch has no text or teaching whatsoever regarding the welding of optical fibers; all of the specific applications relate to joining plastic parts containing circuitboards.

Applicant adds claim 5 which modifies the combination of claim 4 through the provision of the ferrule. This claim is believed to read on the combination in both preweld and postweld conditions.

Favorable reconsideration of the claims presented herewith is respectfully requested.

It is respectfully submitted that this Amendment traverses and overcomes all of the Examiner's objections and rejections to the application as originally filed. It is further submitted that this Amendment has antecedent basis in the application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Reconsideration of the application as amended is requested. It is respectfully submitted that this Amendment places the application in suitable condition for allowance, notice of which is requested.

Appl. No. 10/658,029
Amdt. dated May 12, 2004
Reply to Office Action dated February 12, 2004

If the Examiner has any specific issues of form or substance which might be most effectively addressed in a telephone conference, he is invited to call Applicant's counsel at the telephone number indicated on this paper.

Respectfully submitted,



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